J. D. VASEY.

SCRAPER.

APPLICATION FILED JULY 3, 1906.

908,629.

Patented Jan. 5, 1909.

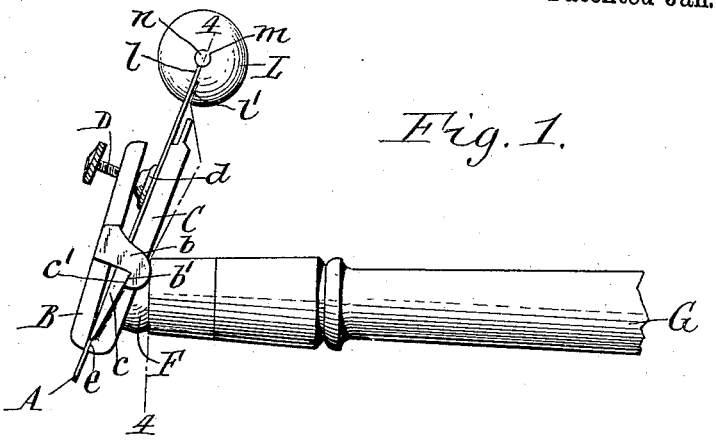


Fig. 1.

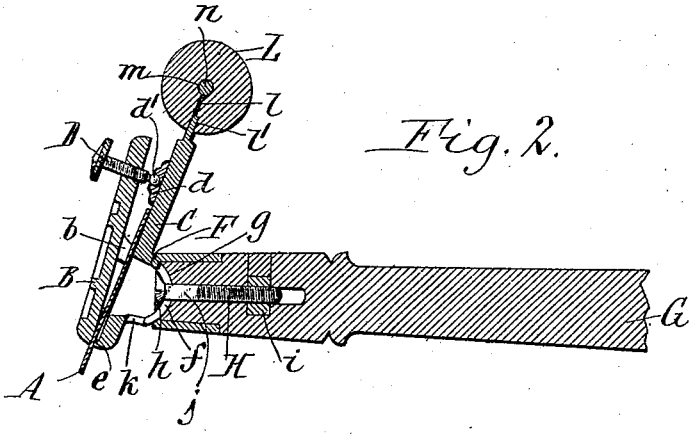


Fig. 2.

Fig. 3.

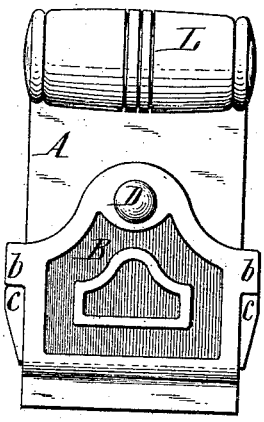
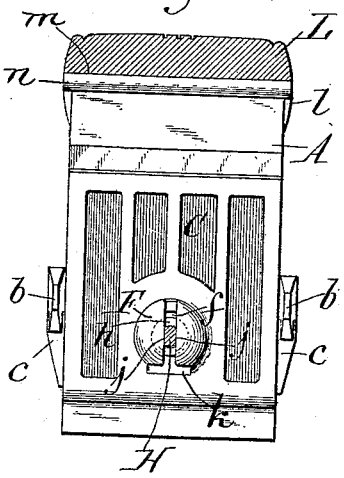


Fig. 4.



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UNITED STATES PATENT OFFICE.

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SCRAPER.

No. 908,629. Specification of Letters Patent. Patented Jan. 5, 1909.

Application filed July 3, 1905. Serial No. 268,022.

To all whom it may concern:

Be it known that I, JOHN D. VASEY, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented a new and useful Improvement in Scrapers, of which the following is a specification.

This invention relates to that class of scrapers which are used by carpenters for producing smooth surfaces and even joints on wood work.

The object of this invention is to improve the means in this character of scraper for detachably and adjustably connecting the several parts; to reduce the cost of manufacture and to increase the efficiency of the tool.

In the accompanying drawings:—Figure 1 is a side elevation of my improved scraper. Fig. 2 is a longitudinal section thereof. Fig. 3 is a front view of the same. Fig. 4 is a transverse section in line 4—4, Fig. 1.

Similar letters of reference indicate corresponding parts throughout the several views.

A represents the scraper blade which preferably consists of an imperforate rectangular sheet of steel. This blade is gripped between front and rear clamping plates B, C in such manner that the blade can be adjusted lengthwise thereon as the same wears and also be reversed so that both ends thereof when sharpened may be used successively and worn dull before the blade needs to be again sharpened. For this purpose the clamping plates are detachably connected by means of coöperating hooks *b* and lugs *c* arranged on the clamping plates and a clamping screw D is provided whereby the parts are tightened relatively to each other. The hooks *b* preferably project rearwardly from opposite sides of the front plate and engage their downwardly opening mouths with the lugs *c*, *c* which project laterally from opposite sides of the rear plate, as shown in Figs. 1, 3 and 4. The clamping screw is arranged in a threaded opening in the front plate and bears at its rear end either against the scraper blade, when the same is of considerable length, as shown in Fig. 1, or against the rear plate when the blade is worn short, as shown in Fig. 2. When the clamping screw is tightened while the plates are thus coupled with the blade between them, the upper parts of the plates are separated but the lower parts are pressed against opposite sides of the blade near the lower operative end thereof, thereby holding the latter while the tool is in use.

In order to hold the hooks *b* reliably in engagement with the lugs *c* the mouth of each hook is undercut on a bevel on its outer side, as shown at *b* and the coöperating face of the companion lug *c* is correspondingly beveled, as shown at *c*, whereby these parts tend to interlock more firmly as the plates are pressed apart by the clamping screw instead of slipping off one another as would be liable to occur if the coöperating faces of the hooks and lugs were arranged at right angles to the line of draft.

As the blade wears away at its lower end the same is lowered between the clamping plates to compensate for the wear which can be easily done by loosening the clamping screw and again tightening the same after adjustment of the blade. For the purpose of preventing the blade from being marred on its front side by the pressure of the clamping screw the latter is provided at its inner or rear end with a pressure head *d* which has a comparatively large bearing surface for engaging with the blade and a swiveling connection *d* with the screw to enable the head to shift its position and bear squarely against the blade.

The blade is usually sharpened at both ends and when one end becomes dull the blade is reversed to bring the other sharp end into position before again sharpening the same.

At its lower end the rear clamping plate is provided with a forwardly projecting rib or jaw *e*. By means of this jaw the rear plate bears against the blade only at its upper and lower ends but is separated therefrom between its ends, whereby the pressure of the plates is concentrated against the blade immediately above its working edge, thereby holding the same firmly in place and preventing it from chattering. In the absence of this jaw any irregularity on the front side of the rear plate would be liable to interfere with a firm grip of the plates upon the blade. Furthermore this jaw causes the blade to be sprung or deflected slightly between its ends by the pressure of the clamp-

ing screw, thereby aiding in preventing displacement of the blade. On its rear side the rear plate is provided with a hollow semi-spherical knuckle or convex boss F which is seated in a correspondingly shaped concave socket *g* on the front end of a main handle G whereby the plates and the blade held thereby are moved laterally. The main handle and the rear clamping plate are adjustably and detachably connected by means of a tie bolt or screw H passing through a vertical or longitudinal slot *f* in the boss and engaging the head *h* at its front end with the inner side of the boss while its threaded rear end screws either directly into the handle or into a nut *i* seated in the same, as shown in Fig. 2.

Upon loosening the handle the same may be raised or lowered on the rear plate for holding the scraper blade at different angles as the nature of the work may require, the blade being held in this position when the handle is again tightened. While the handle is being turned for loosening or tightening the same the tie bolt is prevented from turning by providing that part of the bolt which passes through the slot *f* with flat sides *j* which engage with the sides of the slot *f*, as shown in Fig. 4.

For permitting the main handle and the blade clamping plates to be connected or disconnected, one end of the slot *f*, preferably the lower one is enlarged as shown at *k* which enables the head of the tie bolt to be inserted into the boss and removed therefrom, without disturbing the relative adjustment of the clamping plates and blade. By this means the main handle can be quickly disconnected from the clamping plates when it is desired to use the scraper in places when the main handle would be in the way. This detachable connection also permits of packing the tool more compactly for storage or transportation.

L represents an auxiliary handle whereby a downward or an endwise pressure may be exerted upon the blade while the same is being moved laterally by the main handle. When the blade is comparatively long and projects above the clamping plates this handle is attached to the upper edge of the blade but when the latter is short and does not project above the clamping blades then this handle is applied to the upper edge of the rear clamping plate. For this purpose this handle is provided on its underside with a longitudinal groove which receives either the upper edge of the blade or the upper edge of the rear clamping plate. Inasmuch as the blade is thin and the clamping plate thick compared with the blade the groove of the auxiliary handle is constructed to form an inner narrow part *l* to fit the blade as shown in Fig. 1, and an outer wide part *l*^{1} to fit the rear clamping plate, as shown in Fig. 2. By this means the auxiliary handle can be used regardless of whether the blade is short or long.

When the blade is newly sharpened the same is liable to be dulled by engaging with the bottom of the groove in the handle L and the latter will also be injured. In order to avoid this, inner end of the handle groove is provided with a circular enlargement *m* into which is fitted a cylindrical protecting strip or cushion *n* of leather or similar material. Upon inserting the blade into the groove of the handle L its edge engages with the cushion *n* whereby these parts are protected. When the cushion becomes worn by the edge of the blade the same can be readily renewed.

My improved wood scraper is not only simple and durable in construction but the same also permits of using the blade up almost entirely thus effecting a saving in its use.

I claim as my invention:—

1. A scraper comprising a blade, front and rear clamping plates adapted to receive the blade between them, a handle, and means for connecting the handle and said rear plate comprising a hollow convex boss arranged on the rear side of the rear plate and having an upright slot and an enlargement at one end of said slot, a concave socket arranged on the handle and receiving the outer side of said boss, and a tie bolt or rod arranged in said slot and connected at one end with the handle and provided at its other end with a head adapted to pass through said enlargement and bear against the inner side of said boss, substantially as set forth.

2. In a scraper, the combination with a blade and front and rear clamping plates adapted to receive said blade between them, of a handle, and means for connecting said rear plate and handle comprising a hollow convex boss arranged on the rear side of said rear plate and having an upright slot and an enlargement of said slot at one end thereof, a concave socket arranged on the handle and receiving said boss, and a tie bolt or screw having flat sides which engage with the sides of said slot through which the bolt passes and having a head which bears against the inner side of said boss and is constructed to pass through the enlargement thereof, substantially as set forth.

3. In a scraper, the combination with two clamping plates and a blade thinner than said plates and adapted to be held between said clamping plates, of a handle having a groove the outer part of which is wide for engaging with the upper edge of one of said plates while its inner part is narrow for engaging with the upper edge of said blade, substantially as set forth.

4. In a scraper, the combination with front and rear clamping plates and a blade

thinner than said plates and adapted to be held between said clamping plates, of a handle having a groove the outer part of which is wide for engaging with the upper edge of said rear plate while its inner part is narrow for engaging with the upper edge of said blade, and a cushion arranged in the bottom of said groove and adapted to engage with the upper edge of said blade, substantially as set forth.

Witness my hand this 15th day of June, 1905.

JOHN D. VASEY.

Witnesses:

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